9

30 MAR 2006

10/536570

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 On March 2 B. 200 6

Signed: Deborat Cameron

Deborah Cameron

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Bulthuis et al.

Application No.: 10/536,570

Filed: 26 May 2005

Title: OPTICAL BRANCHING COMPONENT

WITH LOW POLARISATION SENSITIVITY AND INCREASED

PROCESS TOLERANCE

Attorney Docket No.: **GEML 4671-3**

Examiner: Not Assigned

Group: Not Assigned

Confirmation No.: Not Assigned

Customer No. 54413

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56.

Enclosed with this statement is a Form PTO/SB/08A. The Examiner is requested to initial the form and return it to the undersigned in accordance with M.P.E.P. 609.

Also enclosed is a copy of a PCT Search Report mailed May 4, 2004 for a corresponding PCT Application.

Also enclosed with this statement is a copy of each cited document as required by 37 C.F.R. 1.98. If, however, this application was filed after June 30, 2003, copies of U. S. Patents and U. S. Patent Application Publications are not enclosed. (See O. G. Notice of August 5, 2003.)

#

This statement should be considered under 37 C.F.R. 1.97(b) because it is being filed before the mailing date of the first Office Action on the merits.

Fee Authorization. The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (GEML 4671-3). A duplicate copy of this authorization is enclosed.

Respectfully submitted, Haynes Beffel & Wolfeld LLP

Date: 3/28/2006

Warren S. Wolfeld, Reg. No. 31,454

Haynes Beffel & Wolfeld LLP P.O. Box 366; 751 Kelly Street Half Moon Bay, CA 94019 Ph. (650) 712-0340 Fax (650) 712-0263

Please type a plus sign (+) inside this box → 🗔	+
---	---

Under

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
Frader U.S. DEPARTMENT OF COMMERCE contains a valid OMB control number. U.S. Patent and Traden persons are required to respond to a collection of information

the	Paperwork	Reduction	Act.	

Substitute for form 1449A

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Complete if Known					
Application Number	10/536,570				
Filing Date .	26 May 2005				
First Named Inventor	Bulthuis et al.				
Group Art Unit	Not Assigned				
Examiner Name	Not Assigned				
Attorney Docket Number	GEML 4671-3				

	U.S. PATENT DOCUMENTS									
Examiner Initials*	Cite No. ¹	Number (if kn	Code ² own)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
	· A 1	2001/0051018	A 1	Arai et al.	12-13-2001					
	A2	5,044,715		Kawachi et al	09-19-1991					
	A3									
	A4									
	A5									
	A6									
	A7									
	A8									
	A9	·								
	A10									
	A11									
	A12									
	A13									
	A14									
	A15									
	A16									
	A17									
	A18									
	A19									
	A20			•	1	,				

	FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Cite No. ¹	Office ³	Foreign Patent Doc	Iment Kind Co (if know		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T6	
	B 1		EP 0 382 46	1		Kawachi et al.	08-16-1990	<u></u> .		
	B 2		EP 0 610 97	'3		Yamauchi et al.	08-17-1994	•		
	В3		JP 07281041			Shirata Tomoyuki et al.	10-27-1995			
	B4		WO 2004/017	12 A	1	Van der Vliet et al.	02-26-2004			
	B5			1						
	B6									
	B7									
	B8							· ·	\Box	
	B9			Ì						
	B10		•	ĺ					177	

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (MPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this bo	Please	tvpe a	plus	sian	(+)	inside	this bo	x
--	--------	--------	------	------	-----	--------	---------	---

Sheet

>	+	
---	---	--

of

2

PTO/SB/08B (08-00) Approved for use through 10/31/2002. OMB 0651-0031
Trade U.S. DEPARTMENT OF COMMERCE

26 May 2005

U. S. Patent and Trad persons are required to respond to a collection of information

Attorney Docket Number

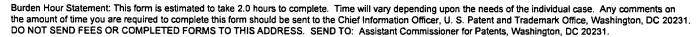
contains a valid OMB control number.

Under the Paperwork Reduction A Complete if Known Substitute for form 1449B/PTC **GEML 4671-3 Application Number** INFORMATION DISCLOSURE 10/536,570 Filing Date STATEMENT BY APPLICANT **First Named Inventor** Bulthuis et al. Not Assigned Group Art Unit Not Assigned (use as many sheets as necessary) **Examiner Name**

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	C1	HASHIZUME Y ET AL. "Integrated polarisation beam splitter using waveguide birefringence dependence on waveguide core width" ELECTRONIS LETTERS, IEE STEVENAGE, GB, vol. 37, no. 25, 6 December 2001, pgs. 1517-1518, XP006017649 ISSN: 0013-5194 * sections "Design", "Experimental results"; figure 1	
	C2	LAI Q ET AL. "Tunable wavelength-selection switch and multiplexer/demultiplexer based on asymmetric silica-on-silicon Mach-Zehnder interferometer" ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 34, no. 3, 5 Feb. 1998 (1998-02-05) pgs. 266-267, XP006009267 ISSN: 0013-5194	
	С3	BESSE P A ET AL. "Optical Bandwidth & Fabrication Tolerances of Multimode Interference Couplers" JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE. NY, US, vol. 12, no. 6, 1 June 1994 (1994-06-01) pgs. 1004-1009, XP000484218 ISSN: 0733-8724, sections II, III; fig. 1,3	
	C4	HONG J-K, KIM J-H, LEE S-S: "Low-power thermooptic silica-on-cilicon MZI switch using multimode interference couplers" SILICON-BASED & HYBRID OPTOELECTRONICS IV, SPIE PROCEEDINGS, vol. 4654, 28 March 2002 pgs 157-163, XP002277219	
	.C5	SOLDANO L B ET AL: "Optical Multi-Mode Interference Devices Based on Self-Imaging: Principles & Applications" Journal of Lighwave Technology, IEEE. NY, US, vol. 13, no. 4, 1 April 1995, pgs. 615-627, XP000513578 ISSN: 0733-8724, sections IV-VI; fig. 4	
	C6	LEE CC ET AL: "2 X 2 Single-Mode Zero-Gap Directional-Coupler Thermo-Optic Waveguide Switch on Glass" Applied Optics, Optical Society of America, Washington, US, vol. 33, no. 30, 20 Oct. 1994, pgs. 7016-7022, XP000476203 ISSN: 0003-6935 section 2; fig. 4	
	C7	SOLDANO L B ET AL: "Large Optical Bandwidth of INGAASP/INP Multi-Mode Interference 3-DBcouplers" Proceedings Europena Conference on Integrated Optics with Technical Exhibition, 1993, pgs 1-4, XP000522450	
	·		

Examiner	Date	
Signature	Considered	

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.